Refine Search

Search Results -

Terms	Documents
L15 and L16	11

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L17

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Search History

DATE: Wednesday, June 30, 2004 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L17	l15 and L16	11	L17
L16	ground$	1425413	L16
L15	l13 and L14	45	L15
L14	friction	798249	L14
L13	l11 and L12	58	L13
L12	coefficient	605119	L12
L11	l9 and L10	71	L11
L10	wheel adj slip	7498	L10
L9	L3 and l7	1207	L9
L8	l6 and L7	0	L8
L7	yaw and roll and longitudinal and lateral	2411	L7
L6	l3 and L5	140	L6
L5	wheel adj slip adj signal	155	L5
L4	l2 and L3	10	L4

L3	vehicle	1748563	L3
L2	wheel adj lift adj signal	10	L2
L1	6593849.pn.	2	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L2 and L3	10

Database: US Pre-Grant Publication Full-Text Database; US Patents Full-Text Database; US OCR Full-Text Database; EPO Abstracts Database; JPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Search: L4

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Wednesday, June 30, 2004 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L4	l2 and L3	10	L4
L3	vehicle	1748563	L3
L2	wheel adj lift adj signal	10	L2
L1	6593849.pn.	2	L1

END OF SEARCH HISTORY

Hit List

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Search Results - Record(s) 1 through 10 of 10 returned.

☐ 1. Document ID: US 20040117085 A1

L4: Entry 1 of 10 File: PGPB Jun 17, 2004

PGPUB-DOCUMENT-NUMBER: 20040117085
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040117085 A1

TITLE: Enhanced system for yaw stability control system to include roll stability control function

PUBLICATION-DATE: June 17, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lu, Jianbo	Livonia	MI	US	
Brown, Todd Allen	Dearborn	MI	US	
Meyers, Joseph Carr	Farmington Hills	MI	US	

APPL-NO: 10/ 705513 [PALM]
DATE FILED: November 10, 2003

RELATED-US-APPL-DATA:
Application 10/705513 is a continuation-of US application 10/174926, filed June 19, 2002, US Patent No. 6654674
Application is a non-provisional-of-provisional application 60/332063, filed November 21, 2001,

INT-CL: [07] G06 F 19/00

US-CL-PUBLISHED: 701/036; 701/070, 340/440
US-CL-CURRENT: 701/36; 340/440, 701/70

REPRESENTATIVE-FIGURES: 2

ABSTRACT:

A yaw stability control system (18) is enhanced to include roll stability control function for an automotive vehicle and includes a plurality of sensors (28-39) sensing the dynamic conditions of the vehicle. The sensors may include a speed sensor (20), a lateral acceleration sensor (32), a yaw rate sensor (28) and a longitudinal acceleration sensor (36). The controller (26) is coupled to the speed sensor (20), the lateral acceleration sensor (32), the yaw rate sensor (28) and a

longitudinal acceleration sensor (36). The controller (26) generates both a yaw stability feedback control signal and a roll stability feedback control signal. The priority of achieving yaw stability control or roll stability control is determined through priority determination logic. If a potential rollover event is detected, the roll stability control will take the priority. The controller for roll stability control function determines a roll angle of the vehicle from the lateral acceleration sensor signal and calculates the feedback control signal based on the roll angle.

RELATED APPLICATIONS

[0001] The present invention claims priority to provisional application no. 60/332,063 filed on Nov. 21, 2001, and is a continuation of non-provisional application no. 10/174,926 filed Jun. 19, 2002.

☐ 2. Document ID: US 20040064246 A1

L4: Entry 2 of 10 File: PGPB Apr 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040064246
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040064246 A1

TITLE: Wheel lift identification for an automotive vehicle using passive and active detection

PUBLICATION-DATE: April 1, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lu, Jianbo	Livonia	MI	US	
Meyers, Joseph Carr	Farmington Hills	MI	US	
Mattson, Keith Glenn	Livonia	MI	US	
Brown, Todd Allen	Dearborn	MI	US	

APPL-NO: 10/ 609448 [PALM]
DATE FILED: June 27, 2003

RELATED-US-APPL-DATA:
Application 10/609448 is a continuation-in-part-of US application 10/038364, filed January 4, 2002, US Patent No. 6593849
Application 10/038364 is a continuation-in-part-of US application 09/669513, filed September 25, 2000, US Patent No. 6356188
Application is a non-provisional-of-provisional application 60/400375, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400376, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400172, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400156, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400155, filed August

1, 2002,
Application is a non-provisional-of-provisional application 60/400261, filed August 1, 2002,

INT-CL: [07] G06 G 7/48

US-CL-PUBLISHED: 701/124; 701/045
US-CL-CURRENT: 701/124; 701/45

REPRESENTATIVE-FIGURES: 2

ABSTRACT:

A control system (18) and method for an automotive vehicle (10) used for detecting lift of a wheel includes a passive wheel lift detector (58) that generates a passive wheel lift signal, an active wheel lift detector (60) that generates an active wheel lift signal, and an integrated wheel lift detector (62) coupled to the passive wheel lift detector (58) and the active wheel lift detector (60). The integrated wheel lift detector (62) generates a final wheel lift signal in response to the passive wheel lift signal and the active wheel lift signal. The final wheel lift signal may be used to control a safety device such as a rollover prevention system.

RELATED APPLICATIONS

[0001] The present invention claims priority to provisional applications Nos. 60/400,375, 60/400,376, 60/400,172, 60/400,156, 60/400,155, and 60/400,261, all filed on Aug. 1, 2002, and No. 60/401,418 filed on Aug. 5, 2002 and is a continuation-in-part of U.S. application Ser. No. 10/038,364 entitled "Wheel Lift Identification For An Automotive Vehicle" which is a continuation-in-part of U.S. application Ser. No. 09/669,513 entitled "Wheel Lift Identification For An Automotive Vehicle", each of which are hereby incorporated by reference herein. The present invention is also related to U.S. Applications (Attorney Docket No. 202-0762/FGT-1678, Attorney Docket No.202-0433/FGT-1683, and Attorney Docket No. 203-0670/FGT-1846), filed simultaneously herewith.

☐ 3. Document ID: US 20040030473 A1

L4: Entry 3 of 10 File: PGPB Feb 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040030473
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040030473 A1

TITLE: System for dynamically determining the wheel grounding and wheel lifting conditions and their applications in roll stability control

PUBLICATION-DATE: February 12, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47

Lu, Jianbo	Livonia	MI	US
Meyers, Joseph Carr	Farmington Hills	MI	US
Brewer, Michael Edward	Royal Oak	MI	US
Brown, Todd Allen	Dearborn	MI	US

APPL-NO: 10/ 609447 [PALM]
DATE FILED: June 27, 2003

RELATED-US-APPL-DATA:
Application 10/609447 is a continuation-in-part-of US application 10/038364, filed January 4, 2002, US Patent No. 6593849
Application 10/038364 is a continuation-in-part-of US application 09/669513, filed September 25, 2000, US Patent No. 6356188
Application is a non-provisional-of-provisional application 60/400375, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400264, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400172, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400376, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400156, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400155, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/401418, filed August 5, 2002,

INT-CL: [07] G06 F 7/00

US-CL-PUBLISHED: 701/36
US-CL-CURRENT: 701/36

REPRESENTATIVE-FIGURES: 2

ABSTRACT:

A method for controlling an automotive vehicle (10) having a plurality of wheels (12a), (12b), (13a), (13b) includes determining a yaw rate, determining a lateral acceleration, determining a roll rate, determining longitudinal acceleration; and determining a calculated angle relative to the vehicle. The method further includes generating a wheel lift signal or a wheel grounded signal as a function of yaw rate, lateral acceleration, roll rate and longitudinal acceleration, adjusting the calculated angle in response to the wheel lift or wheel grounded signal, and controlling a safety system in response to the calculated vehicle angle.

RELATED APPLICATIONS

[0001] The present invention claims priority to U.S. provisional patent applications Nos. 60/400,375, 60/400,261, 60/400,172, 60/400,376, 60/400,156, and 60/400,155, all filed on Aug. 1, 2002, and No. 60/401,418 filed on Aug. 5, 2002, and is a continuation-in-part of U.S. patent application Ser. No. 10/038,364 entitled "Wheel Lift Identification For An Automotive Vehicle", which is a continuation-in-part of U.S. patent application Ser. No. 09/669,513 entitled "Wheel Lift Identification For An Automotive Vehicle", each of which are hereby

incorporated by reference herein, and U.S. patent applications (Attorney Docket Nos. 202-0762/FGT-1678, 202-0634/FGT-1679, and 203-0433/FGT-1683), filed simultaneously herewith.

☐ 4. Document ID: US 20040019418 A1

L4: Entry 4 of 10 File: PGPB Jan 29, 2004

PGPUB-DOCUMENT-NUMBER: 20040019418
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040019418 A1

TITLE: Wheel lifted and grounded identification for an automotive vehicle

PUBLICATION-DATE: January 29, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lu, Jianbo	Livonia	MI	US	
Brewer, Michael Edward	Royal Oak	MI	US	
Brown, Todd Allen	Dearborn	MI	US	
Meyers, Joseph Carr	Farmington Hills	MI	US	

APPL-NO: 10/ 608909 [PALM]
DATE FILED: June 27, 2003

RELATED-US-APPL-DATA:
Application 10/608909 is a continuation-in-part-of US application 10/038364, filed January 4, 2002, US Patent No. 6593849
Application 10/038364 is a continuation-in-part-of US application 09/669513, filed September 25, 2000, US Patent No. 6356188
Application is a non-provisional-of-provisional application 60/400375, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400261, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400172, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400376, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400156, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400155, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/401418, filed August 5, 2002,

INT-CL: [07] B60 R 21/32

US-CL-PUBLISHED: 701/38; 701/36
US-CL-CURRENT: 701/38; 701/36

REPRESENTATIVE-FIGURES: 2A

ABSTRACT:

A control system (18) for an automotive vehicle (10) has a first roll condition detector (64A), a second roll condition detector (64B), a third roll condition detector (64C), and a controller (26) that uses the roll condition generated by the roll condition detectors (64A-C) to determine a wheel lift condition. Other roll condition detectors may also be used in the wheel lift determination. The wheel lift conditions may be active or passive or both.

RELATED APPLICATIONS

[0001] The present invention claims priority to U.S. provisional patent application Nos. 60/400,375, 60/400,261, 60/400,172, 60/400,376, 60/400,156, and 60/400,155, all filed on Aug. 1, 2002, and No. 60/401,418 filed on Aug. 5, 2002, and is a continuation-in-part of U.S. patent application Ser. No. 10/038,364 entitled "Wheel Lift Identification For An Automotive Vehicle", which is a continuation-in-part of U.S. patent application Ser. No. 09/669,513 entitled "Wheel Lift Identification For An Automotive Vehicle", each of which are hereby incorporated by reference herein, and U.S. patent applications (Attorney Docket Nos. 202-0762/FGT-1678, 202-0634/FGT-1679, and 203-0670/FGT-1846), filed simultaneously herewith.

☐ 5. Document ID: US 20040010383 A1

L4: Entry 5 of 10 File: PGPB Jan 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040010383
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040010383 A1

TITLE: Passive wheel lift identification for an automotive vehicle using operating input torque to wheel

PUBLICATION-DATE: January 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lu, Jianbo	Livonla	MI	US	
Brewer, Michael Edward	Royal Oak	MI	US	
Brown, Todd Allen	Dearborn	MI	US	
Meyers, Joseph Carr	Farmington Hills	MI	US	

APPL-NO: 10/ 608908 [PALM]
DATE FILED: June 27, 2003

RELATED-US-APPL-DATA:
Application 10/608908 is a continuation-in-part-of US application 10/038364, filed January 4, 2002, US Patent No. 6593849
Application 10/038364 is a continuation-in-part-of US application 09/669513, filed September 25, 2000, US Patent No. 6356188
Application is a non-provisional-of-provisional application 60/400375, filed August 1, 2002,

Application is a non-provisional-of-provisional application 60/400376, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400172, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400156, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400155, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/400261, filed August 1, 2002,
Application is a non-provisional-of-provisional application 60/401418, filed August 5, 2002,

INT-CL: [07] G06 F 19/00

US-CL-PUBLISHED: 702/41
US-CL-CURRENT: 702/41

REPRESENTATIVE-FIGURES: 2A

ABSTRACT:

A control system (18) and method for an automotive vehicle (10) used for detecting lift of a wheel includes a speed sensor (20) coupled to the wheel producing a wheel speed signal and a torque control system (57) coupled to the wheel for generating an operating input torque to the wheel. A controller (26) is coupled to the torque control system (57) and the wheel speed sensor (20). The controller (26) determines a wheel response to the operating input torque and generates a wheel lift signal as a function of the operating input torque, the wheel speed signal and the wheel response.

RELATED APPLICATIONS

[0001] The present invention claims priority to provisional applications Nos. 60/400,375, 60/400,376, 60/400,172, 60/400,156, 60/400,155, and 60/400,261, all filed on Aug. 1, 2002, and No. 60/401,418 filed on Aug. 5, 2002 and is a continuation-in-part of U.S. application Ser. No. 10/038,364 entitled "Wheel Lift Identification For An Automotive Vehicle" which is a continuation-in-part of U.S. application Ser. No. 09/669,513 entitled "Wheel Lift Identification For An Automotive Vehicle", each of which are hereby incorporated by reference herein. The present invention is also related to U.S. Applications (Attorney Docket No. 202-0634/FGT-1679, Attorney Docket No. 202-0433/FGT-1683, and Attorney Docket No. 203-0670/FGT-1846), filed simultaneously herewith.

☐ 6. Document ID: US 20030100979 A1

L4: Entry 6 of 10 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030100979
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030100979 A1

TITLE: Enhanced system for yaw stability control system to include roll stability

control function

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lu, Jianbo	Livonia	MI	US	
Brown, Todd Allen	Dearborn	MI	US	
Meyers, Joseph Carr	Farmington Hills	MI	US	

APPL-NO: 10/ 174926 [PALM]
DATE FILED: June 19, 2002

RELATED-US-APPL-DATA:
Application is a non-provisional-of-provisional application 60/332063, filed November 21, 2001,

INT-CL: [07] G06 F 19/00

US-CL-PUBLISHED: 701/36; 701/70, 340/440
US-CL-CURRENT: 701/36; 340/440, 701/70

REPRESENTATIVE-FIGURES: 2

ABSTRACT:

A yaw stability control system (18) is enhanced to include roll stability control function for an automotive vehicle and includes a plurality of sensors (28-39) sensing the dynamic conditions of the vehicle. The sensors may include a speed sensor (20), a lateral acceleration sensor (32), a yaw rate sensor (28) and a longitudinal acceleration sensor (36). The controller (26) is coupled to the speed sensor (20), the lateral acceleration sensor (32), the yaw rate sensor (28) and a longitudinal acceleration sensor (36). The controller (26) generates both a yaw stability feedback control signal and a roll stability feedback control signal. The priority of achieving yaw stability control or roll stability control is determined through priority determination logic. If a potential rollover event is detected, the roll stability control will take the priority. The controller for roll stability control function determines a roll angle of the vehicle from the lateral acceleration sensor signal and calculates the feedback control signal based on the roll angle.

RELATED APPLICATIONS

[0001] The present invention claims priority to provisional application No. 60/332,063 filed on Nov. 21, 2001.

☐ 7. Document ID: US 6654674 B2

L4: Entry 7 of 10 File: USPT Nov 25, 2003

US-PAT-NO: 6654674

DOCUMENT-IDENTIFIER: US 6654674 B2

TITLE: Enhanced system for yaw stability control system to include roll stability control function

DATE-ISSUED: November 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lu; Jianbo	Livonia	MI		
Brown; Todd Allen	Dearborn	MI		
Meyers; Joseph Carr	Farmington Hills	MI		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Ford Global Technologies, LLC	Dearborn	MI			02

APPL-NO: 10/ 174926 [PALM]
DATE FILED: June 19, 2002

PARENT-CASE:
RELATED APPLICATIONS The present invention claims priority to provisional application No. 60/332,063 filed on Nov. 21, 2001.

INT-CL: [07] G06 F 7/00

US-CL-ISSUED: 701/36; 701/41, 701/37, 701/38, 701/72
US-CL-CURRENT: 701/36; 701/37, 701/38, 701/41, 701/72

FIELD-OF-SEARCH: 701/36, 701/37, 701/38, 701/41, 701/70, 701/1, 701/72, 701/78, 701/83, 180/197, 303/146, 303/166, 303/189

PRIOR-ART-DISCLOSED:

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ART-UNIT: 3661

PRIMARY-EXAMINER: Camby; Richard M.

ATTY-AGENT-FIRM: Smith; Gary A. Artz & Artz

ABSTRACT:

A yaw stability control system (18) is enhanced to include roll stability control function for an automotive vehicle and includes a plurality of sensors (28-39) sensing the dynamic conditions of the vehicle. The sensors may include a speed sensor (20), a lateral acceleration sensor (32), a yaw rate sensor (28) and a longitudinal acceleration sensor (36). The controller (26) is coupled to the speed sensor (20), the lateral acceleration sensor (32), the yaw rate sensor (28) and a longitudinal acceleration sensor (36). The controller (26) generates both a yaw stability feedback control signal and a roll stability feedback control signal. The priority of achieving yaw stability control or roll stability control is determined through priority determination logic. If a potential rollover event is detected, the roll stability control will take the priority. The controller for roll stability control function determines a roll angle of the vehicle from the lateral acceleration sensor signal and calculates the feedback control signal based on the roll angle.

20 Claims, 6 Drawing figures

☐ 8. Document ID: US 20040030473 A1

L4: Entry 8 of 10 File: DWPI Feb 12, 2004

DERWENT-ACC-NO: 2004-168963
DERWENT-WEEK: 200416

TITLE: Controlling method for automotive vehicle, involves adjusting calculated vehicle angle based on wheel lift signal or wheel grounded signal, and controlling safety system based on calculated vehicle angle

INVENTOR: BREWER, M E; BROWN, T A ; LU, J ; MEYERS, J C

PATENT-ASSIGNEE: BREWER M E (BREWI), BROWN T A (BROWI), LU J (LUJJI), MEYERS J C (MEYEI)

PRIORITY-DATA: 2003US-0609447 (June 27, 2003), 2000US-0669513 (September 25, 2000), 2002US-0038364 (January 4, 2002), 2002US-400155P (August 1, 2002), 2002US-400156P (August 1, 2002), 2002US-400172P (August 1, 2002), 2002US-400264P (August 1, 2002), 2002US-400375P (August 1, 2002), 2002US-400376P (August 1, 2002), 2002US-401418P (August 5, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
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APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
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US20040030473A1	August 1, 2002	2002US-400155P	Provisional
US20040030473A1	August 1, 2002	2002US-400156P	Provisional

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US20040030473A1		US 6356188	CIP of
US20040030473A1		US 6593849	CIP of

INT-CL (IPC): G06 F 7/00

RELATED-ACC-NO: 2002-370591;2002-462939 ;2004-122102 ;2004-135380 ;2004-135381 ;2004-145794 ;2004-158632 ;2004-158633 ;2004-158634 ;2004-167780

ABSTRACTED-PUB-NO: US20040030473A
BASIC-ABSTRACT:

NOVELTY - The method involves generating a wheel lift signal or a wheel grounded signal as a function of yaw rate, lateral acceleration, roll rate and longitudinal acceleration. A calculated vehicle angle is adjusted based on the wheel lift signal or wheel grounded signal. A safety system is controlled based on the calculated vehicle angle.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a control system operating method.

USE - For detecting whether the wheel of an automotive vehicle has lifted from a pavement using passive wheel lift detection.

ADVANTAGE - Improves reliability in predicting the occurrence of wheel lift during operation of automotive vehicle.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of control system.

ABSTRACTED-PUB-NO: US20040030473A
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.2A/16

DERWENT-CLASS: X22
EPI-CODES: X22-X06;

☐ 9. Document ID: US 20040064246 A1, EP 1386806 A1

L4: Entry 9 of 10 File: DWPI Apr 1, 2004

DERWENT-ACC-NO: 2004-135381
DERWENT-WEEK: 200424

TITLE: Control system for automotive vehicle has integrated wheel lift detector

produces final wheel lift signal in response to passive wheel lift signal and active wheel lift signal

INVENTOR: BROWN, T A; LU, J ; MATTSON, K G ; MEYERS, J C

PATENT-ASSIGNEE: FORD GLOBAL TECHNOLOGIES LLC (FORD), BROWN T A (BROWI), LU J (LUJJI), MATTSON K G (MATTI), MEYERS J C (MEYEI)

PRIORITY-DATA: 2003US-0609448 (June 27, 2003), 2002US-400155P (August 1, 2002), 2002US-400156P (August 1, 2002), 2002US-400172P (August 1, 2002), 2002US-400261P (August 1, 2002), 2002US-400375P (August 1, 2002), 2002US-400376P (August 1, 2002), 2002US-401418P (August 5, 2002), 2000US-0669513 (September 25, 2000), 2002US-0038364 (January 4, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040064246 A1	April 1, 2004		000	G06G007/48
EP 1386806 A1	February 4, 2004	E	053	B60T008/00

DESIGNATED-STATES: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US20040064246A1	September 25, 2000	2000US-0669513	CIP of
US20040064246A1	January 4, 2002	2002US-0038364	CIP of
US20040064246A1	August 1, 2002	2002US-400155P	Provisional
US20040064246A1	August 1, 2002	2002US-400156P	Provisional
US20040064246A1	August 1, 2002	2002US-400172P	Provisional
US20040064246A1	August 1, 2002	2002US-400261P	Provisional
US20040064246A1	August 1, 2002	2002US-400375P	Provisional
US20040064246A1	August 1, 2002	2002US-400376P	Provisional
US20040064246A1	June 27, 2003	2003US-0609448	
US20040064246A1		US 6356188	CIP of
US20040064246A1		US 6593849	CIP of
EP 1386806A1	July 31, 2003	2003EP-0254818	

INT-CL (IPC): B60 R 16/02; B60 T 8/00; B60 T 8/24; G06 G 7/48

RELATED-ACC-NO: 2002-370591;2002-462939 ;2004-122102 ;2004-135380 ;2004-145794 ;2004-145795 ;2004-158632 ;2004-158633 ;2004-158634 ;2004-167780 ;2004-168963

ABSTRACTED-PUB-NO: EP 1386806A
BASIC-ABSTRACT:

NOVELTY - The control system includes a passive wheel lift detector (58) and an active wheel lift detector (60) which respectively produce a passive wheel lift signal and an active wheel lift signal. An integrated wheel lift detector (62) is connected to the passive and active wheel lift detectors to produce final wheel lift signal in response to the produced passive and active wheel lift signals.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a vehicle

controlling method.

USE - For automotive vehicle. The system may also be used with safety systems including active/semi-active suspension systems, anti-roll bar, or airbags or other safety devices deployed or activated upon sensing predetermined dynamic conditions of the vehicle.

ADVANTAGE - Improves reliability in predicting occurrence of wheel lift of vehicle during vehicle operation by providing a roll-over detection system. Enables determination of roll condition and wheel lifting of vehicle in passive and active procedures using sensors available in vehicle control system. Allows correction of potential roll-over condition by commanding appropriate actuators. Increases accuracy of amount of evasive action e.g. braking and steering due to improved determination of wheel lifting. Allows adjustment of a roll signal for control according to wheel lift-wheel grounded conditions.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagrammatic view of wheel lift detection system.

Wheel lift detection system 52

Passive wheel lift detector 58

Active wheel lift detector 60

Integrated wheel lift detector 62

ABSTRACTED-PUB-NO: EP 1386806A
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.2B/16

DERWENT-CLASS: Q17 Q18 X22
EPI-CODES: X22-X06; X22-X06A; X22-X06B; X22-X06H; X22-X06J;

☐ 10. Document ID: JP 2004131070 A, US 20040019418 A1, EP 1386803 A1

L4: Entry 10 of 10 File: DWPI Apr 30, 2004

DERWENT-ACC-NO: 2004-122102
DERWENT-WEEK: 200430

TITLE: Roll stability control system for automotive vehicle, has controller to generate potential rollover signal in response to wheel lift signal for controlling safety device in response to rollover signal

INVENTOR: BREWER, M E; BROWN, T A ; LU, J ; MEYERS, J C

PATENT-ASSIGNEE: FORD GLOBAL TECHNOLOGIES LLC (FORD), FORD GLOBAL TECHNOLOGIES INC (FORD), BREWER M E (BREWI), BROWN T A (BROWI), LU J (LUJJI), MEYERS J C (MEYEI)

PRIORITY-DATA: 2003US-0608909 (June 27, 2003), 2000US-0669513 (September 25, 2000), 2002US-0038364 (January 4, 2002), 2002US-400155P (August 1, 2002), 2002US-400156P (August 1, 2002), 2002US-400172P (August 1, 2002), 2002US-400261P (August 1, 2002), 2002US-400375P (August 1, 2002), 2002US-400376P (August 1, 2002), 2002US-401418P (August 5, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2004131070 A	April 30, 2004		144	B60R016/02
US 20040019418 A1	January 29, 2004		042	B60R021/32
EP 1386803 A1	February 4, 2004	E	000	B60T008/00

DESIGNATED-STATES: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP2004131070A	July 31, 2003	2003JP-0311982	
US20040019418A1	September 25, 2000	2000US-0669513	CIP of
US20040019418A1	January 4, 2002	2002US-0038364	CIP of
US20040019418A1	August 1, 2002	2002US-400155P	Provisional
US20040019418A1	August 1, 2002	2002US-400156P	Provisional
US20040019418A1	August 1, 2002	2002US-400172P	Provisional
US20040019418A1	August 1, 2002	2002US-400261P	Provisional
US20040019418A1	August 1, 2002	2002US-400375P	Provisional
US20040019418A1	August 1, 2002	2002US-400376P	Provisional
US20040019418A1	August 5, 2002	2002US-401418P	Provisional
US20040019418A1	June 27, 2003	2003US-0608909	
US20040019418A1		US 6356188	CIP of
US20040019418A1		US 6593849	CIP of
EP 1386803A1	July 31, 2003	2003EP-0254814	

INT-CL (IPC): B60 G 17/015; B60 R 16/02; B60 R 21/01; B60 R 21/13; B60 R 21/32; B60 T 8/00; B60 T 8/58; B62 D 6/00

RELATED-ACC-NO: 2002-370591;2002-462939 ;2004-135380 ;2004-135381 ;2004-145794 ;2004-158632 ;2004-158633 ;2004-158634 ;2004-167780 ;2004-168963

ABSTRACTED-PUB-NO: US20040019418A
BASIC-ABSTRACT:

NOVELTY - The system has a wheel three roll condition detectors for generating respective roll condition signals. A controller (26) determines a wheel lift in response to the roll conditions. The controller generates a passive wheel lift status signal, a potential rollover signal in response to the wheel lift signal and controls a safety device in response to the rollover signal.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of controlling an automotive vehicle.

USE - Used for an automotive vehicle.

ADVANTAGE - The system provides improved determination of wheel lifting and increases the accuracy of the roll angle calculation, thereby resulting in a more appropriate braking or steering evasive action.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram of a roll stability system.

Roll stability control system 18

Speed sensor 20

Controller 26

Yaw rate sensor 28

Suspension load sensor 40

ABSTRACTED-PUB-NO: US20040019418A
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.2A/16

DERWENT-CLASS: Q12 Q17 Q18 Q22 X22
EPI-CODES: X22-J11;

Terms	Documents
L2 and L3	10